

**REMARKS**

Favorable reconsideration of this application is respectfully requested in view of the claim amendments and following remarks.

**Status of Claims**

Claims 1-14, 17, 19-27, and 31 are currently pending in the application of which claims 1, 19, 21 and 25 are independent. Claim 15, 16, 18, and 28-30 are canceled herein. Claims 1-31 were rejected.

**Summary of the Office Action**

Claim 7 is objected to because of minor informalities.

Claims 1-20 and 25-31 were rejected 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

Claims 10 and 11 were rejected 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-6, 8-11, 14-16, 19-29 and 31 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sarkar et al (6937569 hereafter Sarkar), in view of Xu et al (Building Topology-Aware Overlays using Global Soft-State, hereafter XU).

Claims 7, 12, 13, 17, 18 and 30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sarkar-Xu, in view of Madruga et al (2001/0034793, hereafter Madruga).

**Drawings**

Figure 8 was objected to for not be designated as prior art. A replacement sheet for figure 8 including the label "Prior Art" is provided herewith.

**Information Disclosure Statement**

The indication that the documents cited in the Information Disclosure Statement submitted on January 30, 2004, August 4, 2005 and June 27, 2007 have been considered is hereby acknowledged with appreciation.

**Claim Objection**

Claim 7 was objected to because of lack of antecedent basis for "the at least one landmark node." This feature has been deleted from claim 7.

**Claim Rejection Under 35 U.S.C. §101**

Claims 1-20 and 25-31 were rejected 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Independent claims 1 and 19 have been amended to recite a computer system, and thus are tied to another statutory class. Furthermore, the rejection of claim 19 asserts that the means of claim 19 refer only to hardware. However, figure 7 describes a computer system that performs the functions of the means as well.

Independent claim 25 has been amended to recite a "storage device" rather than a readable medium, and thus is statutory. For at least these reasons, the rejection under 35 U.S.C. §101 should be withdrawn.

**Claim Rejection Under 35 U.S.C. §112**

Claims 10 and 11 were rejected 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites,

selecting a predetermined number of nodes in the network to be global landmark nodes comprises randomly selecting a predetermined number of nodes in the network to be global landmark nodes.

The rejection alleges the random number of nodes may be zero, and thus the claim is indefinite. This interpretation of claim 10 is unreasonable, because claim 10 specifically recites multiple global landmark nodes, so the random number must be greater than 1. Hence, claims 10 and 11 are definite and the rejection should be withdrawn.

### **Claim Rejections Under 35 U.S.C. §103(a)**

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in *KSR International Co. v. Teleflex Inc.*, 550 U.S.398, 82 USPQ2d 1385 (2007):

“Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” Quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

As set forth in MPEP 2143.03, to ascertain the differences between the prior art and the claims at issue, “[a]ll claim limitations must be considered” because “all words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re*

*Wilson*, 424 F.2d 1382, 1385. According to the Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of *KSR International Co. v. Teleflex Inc.*, Federal Register, Vol. 72, No. 195, 57526, 57529 (October 10, 2007), once the *Graham* factual inquiries are resolved, there must be a determination of whether the claimed invention would have been obvious to one of ordinary skill in the art based on any one of the following proper rationales:

(A) Combining prior art elements according to known methods to yield predictable results; (B) Simple substitution of one known element for another to obtain predictable results; (C) Use of known technique to improve similar devices (methods, or products) in the same way; (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results; (E) “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. *KSR International Co. v. Teleflex Inc.*, 550 U.S.\_, 82 USPQ2d 1385 (2007).

Furthermore, as set forth in *KSR International Co. v. Teleflex Inc.*, quoting from *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006), “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasonings with some rational underpinning to support the legal conclusion of obviousness.”

Therefore, if the above-identified criteria and rationales are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

- **Claims 1-6, 8-11, 14-16, 19-29 and 31**

Claims 1-6, 8-11, 14-16, 19-29 and 31 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sarkar et al (6937569 hereafter Sarkar), in view of Xu et al (Building

Topology-Aware Overlays using Global Soft-State, hereafter XU). Claim 15-16 and 28-29 are canceled.

Independent claim 1 recites a set of global landmark nodes and a set of local landmark nodes, wherein the sets are different. Sarkar fails to teach or suggest two distinct sets of nodes comprised of a global landmark set and a local landmark set. Instead, Sarkar only discloses landmark nodes 1 and 2. Xu also fails to teach or suggest this feature. Section 4 of Xu discloses using landmark clustering to locate candidate nodes and then measuring RTTs to a few top candidate nodes. However, Xu does not disclose a second set of global landmark nodes different from the landmark nodes.

Independent claim 1 also recites, "the set of landmark nodes are located in routing paths between the node and the global landmark nodes." Sarkar discloses an endpoint 60. In figure 3, Sarkar discloses a first path 520 from the endpoint 60 to the landmark 1, and a second path 530 and 540 to the landmark 2. Sarkar fails to disclose any landmarks on a routing path to a global landmark node. Instead, two separate paths 520 and 530,540 not including any intervening landmarks are disclosed. Xu also does not disclose landmark nodes are located in routing paths between the node and the global landmark nodes.

Independent claims 19, 21, and 27 recite, "wherein the set of local landmark nodes are different than the set of global landmark nodes and the set of landmark nodes are located in routing paths between the node and the global landmark nodes." These features are not taught or suggested by Sarkar in view of Xu for the reasons stated above.

For at least these reasons, claims 1-6, 8-11, 14, 19-27 and 31 are believed to be allowable.

- **Claim 7, 12, 13, 17, 18 and 30**

Claims 7, 12, 13, 17, 18 and 30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sarkar-Xu, in view of Madruga et al (2001/0034793, hereafter Madruga). Claims 18 and 30 are canceled. Claims 7, 12, 13, and 17 are believed to be allowable at least for the reasons claim 1 is believed to be allowable. Furthermore, claim 7 recites, "receiving an acknowledge message from each local landmark node receiving the probe packet; and determining the second distances to the set of local landmark nodes in response to receiving each acknowledge message." The rejection asserts these features are disclosed in paragraph 130 of Madruga. Paragraph 130 of Madruga discloses multiple cores that can handle join requests from routers attempting to join a multicast mesh network. It appears the rejection is asserting the multiple cores that can handle join requests are the claimed local landmark nodes. However, Madruga does not disclose a router sends the join request to each core and determines distances to each core. Thus, Madruga fails to teach or suggest receiving an acknowledge message from each local landmark node and determining distances from the received messages.

**Conclusion**

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited. Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to Deposit Account No. 08-2025.

Respectfully submitted,

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By



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